

# Comparisons of Job Characteristics

**Focus Occupation:** Environmental Science and Protection Technicians, Including Health (19-4091)

**Associated Occupation:** Environmental Engineering Technicians (17-3025)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 70

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	15.8	9.7	<<	Extensive education and/or training may be required
Design	5.2	11.1	7.1	<<	Extensive education and/or training may be required
Building and Construction	4.0	10.6	6.8	<<	Extensive education and/or training may be required
Physics	4.3	10.2	9.9	0	Current knowledge level may be sufficient
Law and Government	5.9	9.5	9.8	0	Current knowledge level may be sufficient
Biology	3.7	6.8	11.4	>>	Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Reading Comprehension	10.7	16.3	12.8	<<	Extensive development of skills in this area may be required
Critical Thinking	10.8	14.5	12.3	<	A higher skill level may be required
Active Learning	8.7	12.6	8.7	<<	Extensive development of skills in this area may be required
Mathematics	6.2	11.3	9.2	<	A higher skill level may be required

Quality Control Analysis	5.9	9.7	7.2	<<	Extensive development of skills in this area may be required
Management of Material Resources	3.7	6.8	4.7	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 94			
Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091) Associated Occupation: Environmental Engineering Technicians (17-3025)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	16.6	13.9	<	Some improvement in abilities may be required
Problem Sensitivity	11.1	15.9	11.9	<<	Extensive improvement in abilities may be required
Near Vision	11.1	14.7	12.8	<	Some improvement in abilities may be required
Deductive Reasoning	10.6	14.5	11.8	<	Some improvement in abilities may be required
Inductive Reasoning	10.2	13.6	11.4	<	Some improvement in abilities may be required
Information Ordering	9.9	13.3	11.1	<	Some improvement in abilities may be required
Category Flexibility	9.0	11.8	9.5	<	Some improvement in abilities may be required
Mathematical Reasoning	6.3	10.6	9.1	<	Some improvement in abilities may be required
Number Facility	6.3	10.6	9.0	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 84
Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091) Associated Occupation: Environmental Engineering Technicians (17-3025)		
Work Activities	Exclusivity of Activity	
Analyze scientific research data or investigative findings	27	
Collect samples for testing	58	
Communicate technical information	4	
Create mathematical or statistical diagrams or charts	43	
Develop plans for programs or projects	31	
Explain complex mathematical information	30	

Follow safe waste disposal procedures	50
Inspect facilities or equipment for regulatory compliance	51
Maintain records, reports, or files	5
Prepare technical reports or related documentation	22
Record test results, test procedures, or inspection data	48
Use chemical testing or analysis procedures	54
Use government regulations	44
Use hazardous disposal techniques	80
Use hazardous materials information	35
Use knowledge of materials testing procedures	70
Use knowledge of metric system	39
Use laboratory equipment	60
Use pollution control techniques	62
Use precision measuring tools or equipment	17
Use scientific research methodology	21

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 87

**Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)**  
**Associated Occupation: Environmental Engineering Technicians (17-3025)**

Tools and Technologies	Exclusivity
Autoclave and sterilizer equipment and accessories	12
Business function specific software	1
Cameras	2
Chemical evaluation instruments and supplies	10
Computer data input devices	2
Computer printers	2
Computers	1
Content authoring and editing software	1
Content management software	6
Data management and query software	1
Electrical measuring and testing equipment	7
Electrochemical measuring instruments and accessories	9
Fluid mechanics equipment	11
Gas analyzers and monitors	10
Hydrological instruments	31
Industry specific software	1
Information exchange software	1
Laboratory centrifuges and accessories	13
Laboratory microscope slides and supplies	20
Laboratory pumps and tubing	23
Light and wave generating and measuring equipment	4

Liquid and gas flow measuring and observing instruments	15
Liquid and solid and elemental analyzers	19
Meteorological instruments	16
Network applications software	1
Pipettes and liquid handling equipment and supplies	16
Pumps	9
Sampling equipment	12
Soil measuring equipment	20
Spectroscopic equipment	10
Swimming pool and spa equipment and supplies	70
Viewing and observing instruments and accessories	4
Water treatment and supply equipment	21

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.